FILE NOTATIONS

Driller's Log.....

Checked by Chief Entered in MID File Approval Lefter pacation flamed Card Inda.ed Disamordval Lebter COMPLETION DATA: Date Well Completed 4.18.74 Location Inspected Bond released OW.... TA.... State or Fee Land GW.... OS.... PA....

LOGS FILED

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SUBMIT IN 1 ICATE*

(Other instru. as on reverse side)

Form approved. Budget Bureau No. 42 R125.

5. LEASE DESIGNATION AND SERIAL NO.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DRILL DEEPEN DEEPEN PLUG BACK 7. UNIT AGREEMENT NAME		GEOLO	SICAL SURVEY		U-1	6526-A
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TYPE OF WELL GAR OTHER Wildcat SINGLE SONE SONE	TYPE OF WORK					EMENT NAME
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ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive e. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout venter program, if any.	SIGNED J	Smil Some	TITLE	Area Engineer	DATE .	October 30, 197
e. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout venter program, if any.	(This space for Feg					
e. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout venter program, if any.	4	leral or State office use)				
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signed	1 MM 11 NO.	Seral or State office use)	,27	APPROVAL DATE		
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PERMIT NO.

CONDITIONS OF APPROVAL, IF ANY:

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UNITED STATES

5. Lines insignification and desiral no. DEPARTMENT OF THE INTERIOR **GEOLOGICAL SURVEY** 6. INTINDIAN, ALLOTTES C APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 1a. TYPE OF WORK DRILL 🛎 PLUG BACK [DEEPEN ğ b. TYPE OF WELL MULTIPLE SONE WELL WELL LEASE NAI OTHER 2. NAME OF OPERATOR Almes 71 STATE CHEMY 3. ADDRESS OF OPERATOR 501 Airport Drive, Paralogeus, Nov Mixies \$7461 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) 1700' Mil & 1030' FEL V Grotholoh

od. sone La Bolow' N "NW SE NE At proposed prod. sone 14. DISTANCE IN MILES AND DERECTION FROM NEAREST TOWN OR POST OFFICE سه سلاله ۵.6 10. DISTANCE FROM PROPOSED*
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PROPERTY OR LEASE LINE, FT.
(Also to pearest drig, unit line, if any) 16. NO. OF ACRES IN LEASE 1030 1240.0 18. DISTANCE FROM PROPOSED LOCATIONS TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 19. PROPOSED DEPTH TALL START 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6202' unareded (23. PROPOSED CASING AND CEMENTING PROGRAM whighe par poor SETTING DEPTH SIZE OF HOLE SIZE OF CASING 250 7-7/6 to drill to 560 es will be sent as so 6 8 8 Hon to of IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present pl 海道建筑 建红 的语言 中国企业 计 sone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measu preventer program, if any. SIGNED (This space for Federal or State office use)

APPROVAL DATE

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SCALE-4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-VISION AND THAT THE SAME ARE TRUE MAD, CORRECT TO THE BEST OF MY KNOWLEDGE AND BELLEF. N. W.

SEAL:

Registered and Surveyor.
Fred B. Kerr Jr.
#3950

October 2

FARMINGTON, N. M.

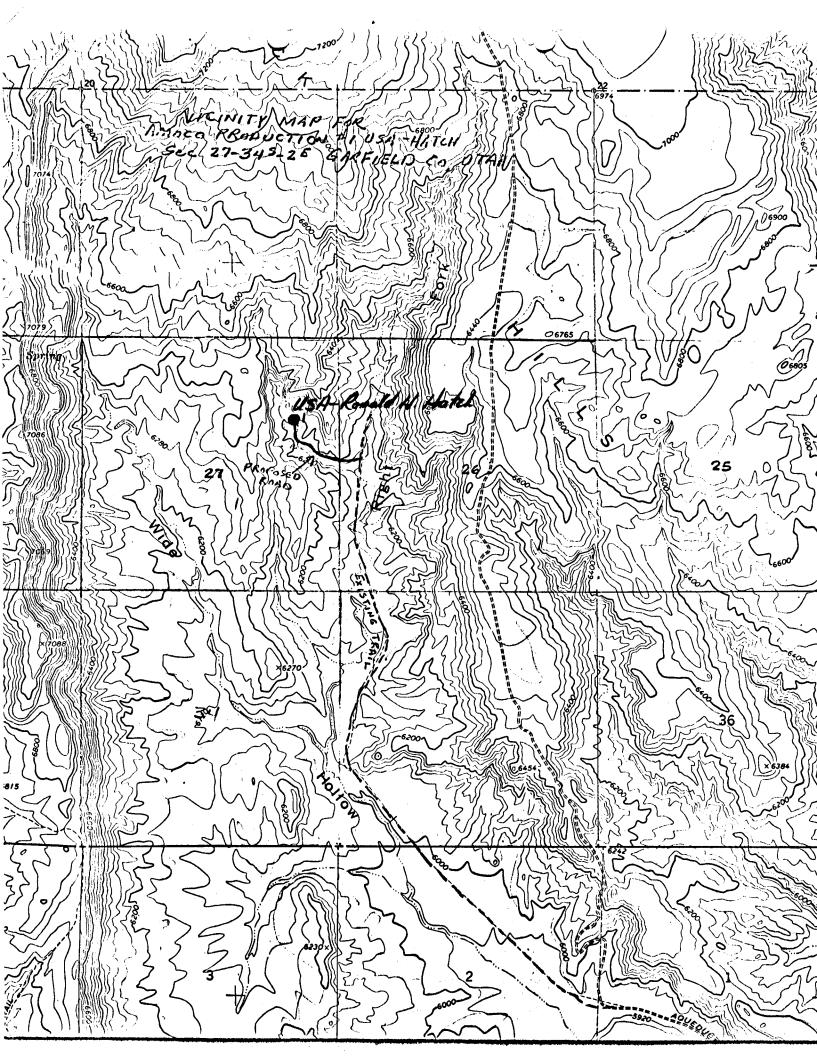
TWELVE POINT PLAN USA RONALD H. HATCH NO. 1

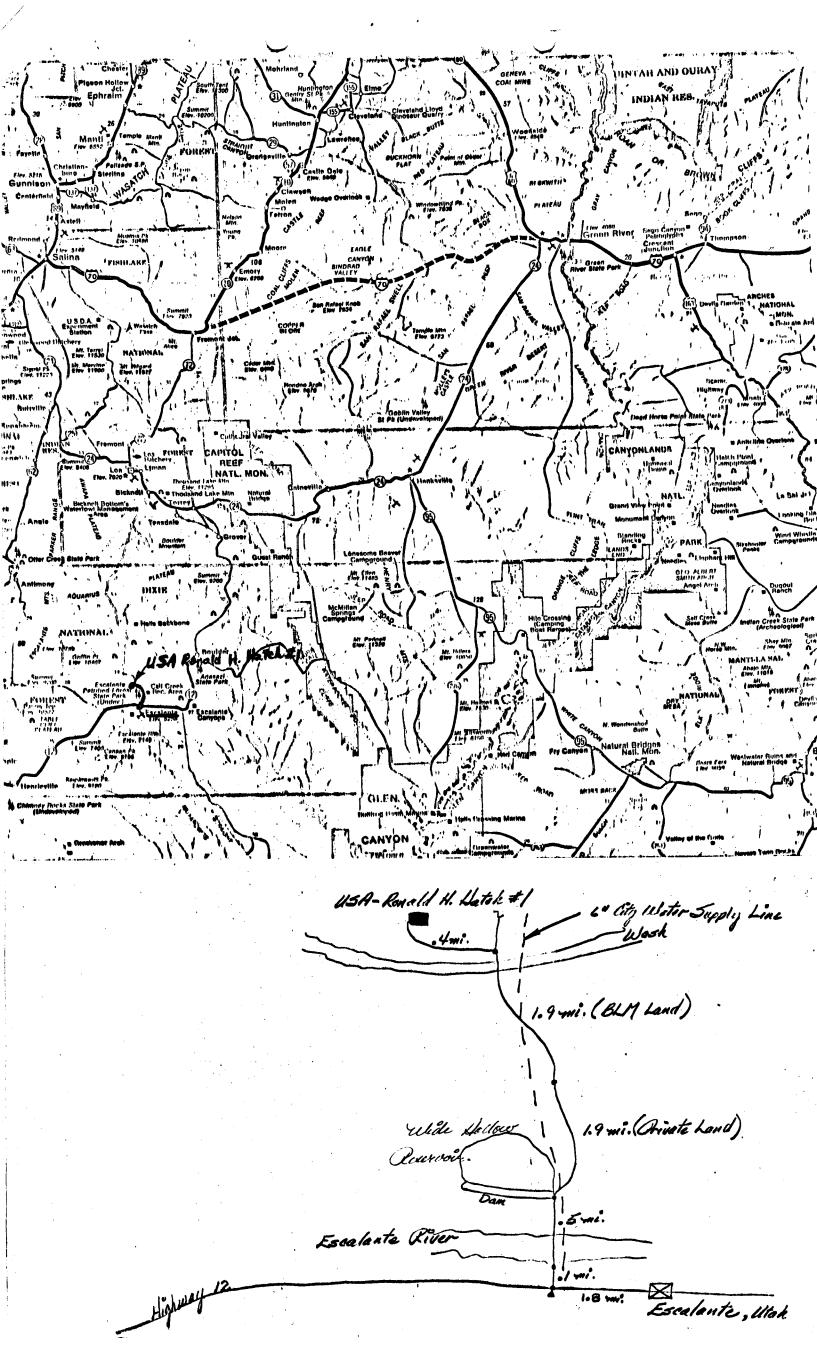
The location of the proposed well is near an existing road and only .4 miles of new road will need to be constructed. Of the 4.4 miles of existing road to be used, 2.5 miles are on private land and 1.9 miles are on BLM land. This road will be widened and improved.

There are no other wells in the vicinity and there are no other roads near the location. If the well is productive, production facilities will be constructed on the well location. Water for drilling operations will be obtained from the Escalante River 4.7 miles from the location and hauled to the location by truck.

The mud in the reserve pit will be hauled and spread and bladed into the road, if permitted, or disposed of in whatever manner is approved by the regulatory body. The only camps will be the trailer houses of the pusher and the water hauler, and they will be set up on location. The nearest airstrip is approximately 2 miles east of Escalante, Utah, which is 6.6 miles southeast of the proposed location.

After the well is drilled and if it is not productive, the reserve pit will be filled and levelled. The location, pit and .4 miles new road will be seeded to BLM specifications. The .4 miles of new road will be constructed to BLM specifications. The BLM will notify the State Archaeologist so he can inspect the proposed location site before construction commences.





Bocation Plan
U.5 A- Ronald H. Hatch No. 1 Road to location ocation Stake Reseave 125 TRASH PIT 20'

November 5, 1973

AMOCO Production Company 501 Airport Drive Farmington, New Mexico 87401

> Re: Well No. USA-Ronald W. Hatch #1 Sec. 27, T. 34 S, R. 2 E, Garfield County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to unorthodox well is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL - Chief Petroleum Engineer HOME: 277-2890

OFFICE: 328-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API number assigned to this well is 43-017-30062.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT DIRECTOR

CBF:sd

cc: U.S. Geological Survey

gind

March 5, 1974

MEMO FOR FILING

Re: Amoco Prod.
Hatch USA #1
Sec. 27, T. 34 S, R. 2 E,
Garfield County, Utah

On February 28, 1974, a visit was made to the above referred to well site.

Location has been made. Operator is waiting on rig. They may use the rig which is presently drilling the Skyline Federal #A-1 well or the Loffland Rig #12 which is drilling the well in the Hanksville Area.

CLEON B. FEIGHT DIRECTOR

CBF:1p

cc: U. S. Geological Survey

orm 9–331 (ay 1963)	DEPART	mTED STATI	ES INTE R IOF	SUBMIT IN ACATE (Other instructic s on reverse side)	5. LEASE DE		AND SERIAL
/)		GEOLOGICAL SU	RVEY			16526-	
• • • • • • • • • • • • • • • • • • • •		SALS TO REF		WELLS to a different reservoir. sals.)	6. IF INDIA	N, ALLOTTE	OR TRIBE
OIL GAS WELL	OTHER	Wildcat			7. UNIT AGE	EEMBNT NA	ME
NAME OF OPERATOR AMOCO PRODUC		Pany				mald H	. Hatch
ADDRESS OF OPERATOR			Manuel a.a. (7401	9. WELL NO	•	
	eport location w.)	armington, New clearly and in accordance		87401 re requirements.*	SE/4 NI	E., M., OR I EY OR AREA //4 Sec	BLK. AND
. PERMIT NO.		15. ELEVATIONS (Show	w whether DF, RT,	GR, etc.)	12. COUNTY		18. STATE
		62021 sm	graded GL		Garfie	14	Utah
REPAIR WELL		CHANGE PLANS		(Note: Report resul	ts of multiple of	ompletion	on Well
proposed work. If nent to this work.)	well is directi	onally drilled, give sub	surface locations	tails, and give pertinent date and measured and true vert	pletion Report	imated dat all marker	e of startins and zones
A 15" hole was then rea	well is directives spudding to 25 as "A"	ad at 9:00 p.m 1" to a depth coment with 2%	., March (of 262'. CaCl on 1	tails, and give pertinent date and measured and true vert 5, 1974, and drill The 16" casing wa	es, including estical depths for	imated datall markers The 262' was alread	e of starting and sones

orm 9-331 A T		INTED STATES	SUBMIT IN PERCATE	Form approved	
	DEPAR	RTMENT OF THE INTE	RIOR (Other instructions on re-	Budget Bureau 5. LEASE DESIGNATION A	NO. 42-R
L.		GEOLOGICAL SURVEY		U-16526-A	
SUN	IDRY NO	OTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTER	OR TRIBE N
		oposals to drill or to deepen or plu LICATION FOR PERMIT—" for such			
OIL GAS WELL WELL	OTHER	wildcat		7. UNIT AGREEMENT NAM	10
NAME OF OPERATOR				8. FARM OR LEASE NAME	<u> </u>
AMOCO PROD	UCTION (COMPANY		USA Ronald H.	Hatel
ADDRESS OF OPERATOR				9. WELL NO.	
501 Airpor	t Drive,	, Farmington, New Mex	1eo 87401	1	_ : :
See also space 17 bel	teport locatio ow.)	on clearly and in accordance with an	ay State requirements.*	10. FIELD AND POOL, OR	WILDCAT
At surface				Wildest	
1700' TML &	1030 ' 1	TEA:		11. SEC., T., R., M., OR BLI SURVEY OR APPLA SE/4 ME/4 Sect	ion 27
4. PERMIT NO.		15. ELEVATIONS (Show whether	DF, RT, GR, etc.)	12. COUNTY OR PARISH	13. STATE
		6202 ungraded	ca.	Garfield	Uta
			Nature of Notice, Report, or Ot		
:	NOTICE OF IN	TENTION TO:	SUBSEQUE	ENT REPORT OF:	
TEST WATER SHUT-0	FF	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WE	LL
FRACTURE TREAT		MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASI	ING
SHOOT OR ACIDIZE		ABANDON*	SHOOTING OR ACIDIZING	ABANDONMENT'	
REPAIR WELL		CHANGE PLANS	(Other)	of multiple completion on	Well
(Other)			Completion or Recomplet	tion Report and Log form.	.)
proposed work. If nent to this work.)	well is dire	ectionally drilled, give subsurface lo	ent details, and give pertinent dates, i cations and measured and true vertical	depths for all markers a	of starting
,					
		_			
The 8-5/8"	casing	was set at 1995' with	1-1/2" parasite string	g at 1951'. Car	mater
			Pos and 6% Gel followed		
_			t circulated. The hole	was reduced to	7-7/6
ec TAAD, e	ad drill	ing resumed.			
		TTO TOWNSHIEL			
		and and desput			
			•		

DATE .

TITLE _

(This space for Federal or State office use)

APPROVED BY _______ CONDITIONS OF APPROVAL, IF ANY:



Amoco Production Company

501 Airport Drive Farmington, New Mexico 87401

March 25. 1974

File: LOS-96-986.613

Re: Reserve Pit Spill

USA Ronald H. Hatch Well No. 1

Garfield County, Utah

Mr. Gerald R. Daniels
District Engineer
U. S. Geological Survey
8426 Federal Building
125 South State Street
Salt Lake City, Utah 84138

Dear Mr. Daniels:

Attached you will find the requested report on the reserve pit spill which occurred at the Amoco Production Company drilling well USA Ronald H. Hatch No. 1 on March 20, 1974. Since the Bureau of Land Management worked closely with Amoco on the surface use plans at this drillsite, all spill contingencies were directed through their office. Satisfactory agreement was made between BLM representative Mr. Don Coleman and Amoco representative Mr. Arlo Cleaver for handling the spill.

Yours very truly,

L. O. Speer, Jr. Alet

il of peur Fo

Area Superintendent

JAP:en Attach.

cc: Bureau of Land Management 320 North First East Kanab, Utah 84741

State of Utah
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

SPILL REPORT RESERVE PIT SPILL WELL USA RONALD H. HATCH NO. 1

Amoco Production Company while drilling a wildcat well in southern Utah experienced a reserve pit spill. The spill location is at the USA Ronald h. Hatch Well No. 1 drillsite in the SE/4 of the NE/4 of Section 27, T-34-S, R-2-E, Garfield County, Utah. At approximately 2:00 a.m. on March 20, 1974, part of one wall of the earthern diked reserve pit gave way and an estimated 1460 barrels of fluid escaped into a nearby wash. (Refer to photographs at end of report.)

The fluid travelled about 1.1 miles down the narrow wash. The fluid quickly soaked into the dry sandy bottom of the wash and left a thin layer of mud cake on the narrow drainage area. The end of the spill is 0.8 mile from the Wide Hollow Reservoir. No spill material directly reached the reservoir.

The onsite Amoco field representative upon learning of the spill notified the Bureau of Land Management with whom Amoco has worked closely in building the road and location for this drilling well. The BLM and the Amoco representative worked out arrangements to handle the subsequent pit repair, inspection and disposition of spill material. The office of the BLM contacted the USGS office in Salt Lake City, Utah, the morning of the spill. The USGS office in turn contacted the Amoco Production Company office in Farmington, New Mexico, and explained that the USGS office requires a full report of the reserve pit spill.

Also on the day of the spill, March 20, 1974, the following agencies were notified: Environmental Protection Agency in Denver, Colorado; Utah State Division of Health, Bureau of Environmental Health Water Quality Section in Salt Lake City, and the Utah State Oil and Gas Conservation Office in Salt Lake City.

On March 21, 1974, a representative of the BLM, Mr. Don Coleman, inspected the spill area. During the inspection it was agreed to leave the mud cake in the wash and allow normal precipitation, run off, and erosion to naturally clean up the mud residue. The residue in the wash does not constitute a threat to the adjacent environment. The spill fluid consists primarily of bentonite clay and water with about 1.1% dissolved chloride ions. The pH of 8 is only slightly over neutral. A sample of the spill fluid was obtained and conveyed to Milchem Inc., Drilling Fluids Division in Farmington, New Mexico. Milchem sent the sample to their laboratory in Dallas, Texas for complete analysis. We anticipate a report from them in about 10 days. Once we receive the report, a copy will be forwarded to the USGS office, Salt Lake City, Utah for inclusion with this report.

Origin of the spill was located on the southeastern outward edge of the reserve pit. A trapezoidal cross section of the earthern dike four feet wide at the top, one and a half feet at the bottom, and four and a half feet high gave way and was washed out. Fluid level in the pit dropped 13 inches. The irregular shaped pit is diagrammed on attachment number 1. Maximum volume of the pit for each foot of depth is approximately 1345 barrels. The pit was only slightly over half full when the accident occurred.

The exact cause of the washout cannot be determined. The pit was in no danger of overflowing because three feet of vertical capacity was still available. Particular effort was made during construction of the dike walls to avoid frozen chunks of earth. We have past experience with frozen material which can thaw and cause seepage problems. The dike material is sandy and clayey soil which has developed on the Entrada Sandstone surface crop. The material is very adequate for dike construction. The dike slopes were normal repose angle slopes. There is, however, the possibility that the washout was initiated by a soil creep movement or slumping action.

Preventive measures to guard against reoccurrence will include closer surveilance of the dike condition by drilling contractor employees and operator supervisors to observe any seepage areas that represent a potential hazard. Also to keep the level in the reserve pit at relative low levels. If approval is obtained, this can be done by using the pit fluids for road surfacing. This technique of putting reserve pit material on roads is a common widely accepted practice. Such disposal would not only minimize the chances of a spill but also diminish the volume of any potential spill. The mud tanks are jetted to the reserve pit only as frequently as needed. This practice is a necessity in the drilling operation and will be prudently executed to prohibit excessive jetting.

We feel these measures will minimize the chances for future spills of this type. Amoco is the leader in the number of wells drilled in the Rocky Mountains and well known for its prudent and safety conscious operations. We endeavor to make all our drilling operations free of potential hazards and in agreement with all the accepted standards of the industry. If we can furnish additional information regarding the contents of this report or our operations, please contact us.

USA RONALD H. HATCH WELL NO. 1 PHOTOGRAPHS OF SPILL

Only photos are attached to U.S.G.S. copy of letter.

No. 1 Reserve Pit - looking back from break.

No. 2 Area where fluid entered wash below the reserve pit.

No. 3 Spill fluid in wash approximately 0.5 mile from pit.

No. 4 End of spill 1.1 miles from pit. Photo 15 hours after spill. All fluid soaked in and wash completely dry.



Amoco Production Company

ENGINEERING CHART

FILE SPILL REPORT

DATE 3-22-74

DY VAP

SUBJECT USA ROYALD 4 HATCH NOI WELL

SKETCH OF RESERVE PIT Scale 1"= 401 -OCATION OF RIG RESERVE PIT LOCATION OF Outside Area - 9425 39 feet

Inside Area - 7545 \$9 feet

Depth - 81/2 feet

Volume of inner area is approximately 1345 bbls per foot depth Spill Volume . 13" lost out of pit 13/12 × 1345 = 1460 Barrels

Form 9-331 (May 1963)

ITED STATES S

SUBMIT IN TI ICATE. (Other instructions on re-

Form approved. Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)	U-16526-A 6. IF INDIAN, ALLOTTE	
obe III I Mollikoli i ole I Menti I — tot such proposais,		E OR TRIBE NAME
OIL GAS WELL OTHER WIldcat	7. UNIT AGREEMENT N	AME
NAME OF OPERATOR	8. FARM OR LEASE NA	ME
AMOCO PRODUCTION COMPANY	USA Ronald	H. Hatch
. ADDRESS OF OPERATOR	9. WELL NO.	
501 Airport Drive, Farmington, New Mexico 87401	1	
. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface	10. FIELD AND POOL, C	DR WILDCAT
1700' FNL & 1030' FEL	11. SEC., T., E., M., OR SURVEY OR AREA SE/4 NE/4 Sec T-34-S. R-2-	ction 27,
4. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISE	
6202' ungraded GL	Garfield	Utah
6. Check Appropriate Box To Indicate Nature of Notice, Report, or NOTICE OF INTENTION TO: SUBSE	Other Data	
TEST WATER SHUT-OFF PULL OR ALTER CASING WATER SHUT-OFF	REPAIRING	WELL
FRACTURE TREAT MULTIPLE COMPLETE FRACTURE TREATMENT	ALTERING C	ASING
SHOOT OR ACIDIZE ABANDON* SHOOTING OR ACIDIZING	ABANDONME	NT*
REPAIR WELL CHANGE PLANS X (Other)		
(Other) (Note: Report resul	ts of multiple completion appletion Report and Log fo	on Well rm.)

Verbal approval to do above work received in telephone conversation between Mr. Gerald Daniels, U.S.G.S., and Mr. Arnold Snell, Amoco, on 3-30-74.

18. I hereby certify that the foregoing is true and correct SIGNED	TITLE Area Engineer	DATE 4-15-74
(This space for Federal or State office use)		
APPROVED BYCONDITIONS OF APPROVAL, IF ANY:	TITLE	DATE

JAB

STATE OF UTAH DIVISION OF OIL & GAS CONSERVATION DEPARTMENT OF NATURAL RESOURCES

PLUGGING PROGRAM

NAME OF COMPANY Cluses	
WELL NAME Stateh #1	API NO:
sec. 37 Township 345 Range 26	County Darful
Verbal Approval Given to Plug the Above Ref	erred to Well in the Following Manner:
Total Depth: 5600'	
Casing Program:	Formation Tops: Caruel - 3062 Weigate - 3352 Chille - 3620 Chille - 3620 Molukopi - 4327 Iluiwep - 5005
Plugs Set as Follows: Could above 5775-5050 75' fling @ 4180-4080 00' plug @ 3400-3300	Hital - 5140 White Run - 5235 Josoweep - 5420
Perculate 1/2" parasit af Del HII WA 1186 horred	Je Cement below tames te string with Cement Muss Grugetesh Signed: Dehelle

Form 9-331 (May 1963)	חבחגר	ITED STATES	SUBMIT IN TI ICATE*	Form appro Budget Bur 5. LEASE DESIGNATION	eau No. 42 ⊻R1424
	DEPAR	TMENT OF THE INTE GEOLOGICAL SURVEY		U-16526	
CI	INDRY NO	OTICES AND REPORTS	· · · · · · · · · · · · · · · · · · ·	6. IF INDIAN, ALLOTT	
		oposals to drill or to deepen or pl LICATION FOR PERMIT—" for su			
1.				7. UNIT AGREEMENT N	VAME
WELL GAS WE	LL OTHE	R Wildcat		8. FARM OR LEASE NA	
2. NAME OF OPERATO		I COMPANY		USA Ronald	
3. ADDRESS OF OPER	PRODUCTION ATOR	CORPANI		9. WELL NO.	n. næten
501 A1	rport Driv	e, Farmington, New 1	Maxico 87401	1	
4. LOCATION OF WEL See also space 17	L (Report location	on clearly and in accordance with	any State requirements.*	10. FIELD AND POOL,	OR WILDCAT
At surface				Wildcat 11. sec., t., R., M., OR	RIK AND
17001	FNL & 1030	1 mor		SURVEY OR ARE	3A
1700	tur a roa	? 2 E.L.		SE/4 NE/4 S T-34-8, R-2	
14. PERMIT NO.		15. ELEVATIONS (Show whether		12. COUNTY OR PARIS	
		62021	ungraded GL	Garfield	Utah
16.	Check	Appropriate Box To Indicat	e Nature of Notice, Report, or C	ther Data	
	NOTICE OF I	NTENTION TO:	SUBSEQU	ENT REPORT OF:	
TEST WATER SH	UT-OFF	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING	WELL
FRACTURE TREAT		MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING	CASING
SHOOT OR ACIDIZ	.E	ABANDON*	SHOOTING OR ACIDIZING (Other) Change Plans	ABANDONM	
REPAIR WELL		CHANGE PLANS	(Note: Report results	of multiple completion	on Well
(Other)	ED OR COMPLETED	OPERATIONS (Clearly state all pert	Completion or Recompliment details, and give pertinent dates, locations and measured and true vertica	including estimated da	te of starting an
fish a at 378 sand a and bi common	1-74 spott t 3872'. 3'. Dress nd 2% CaGI t and drill ced drilli	Waited on cement to sed plug to 3791'. S Lat 3791' up. Waite Lled solid cement 372 ing sidetrack hole at	A" coment with 15% sand set 12 hours. Ran dril Spotted 60 sacks Class "ad on coment to set tota 28' and 3734'. Tripped t 3734'. Continued dril up in preparation to cor	1 pips and ta A" coment wit 1 36 hours. in with Dyna- ling to a dep	gged plug h 15% Ran tubing Drl and
5128'	where core	: barrel was picked u	up in preparation to cor	e well.	

TITLE .

TITLE .

Area Engineer

April 16, 1974

DATE _

DATE _

18. I hereby certify that the foregoing is true and correct

(This space for Federal or State office use)

APPROVED BY _______CONDITIONS OF APPROVAL, IF ANY:

SUBMIT IN DUP TED STATES DEPARTMENT OF THE INTERIOR

.E*

(See other instructions on 5. LEASE DESIGNATION AND SERIAL NO.

WELL CO		GEOLOG	ICAL S	URVEY	•		reverse	,	U-1	16526	- 4
/	MPLETION	OR REC	OMPL	ETION I	REPORT	ANI) LOG	*	6. IF INDIA	N, ALLOT	TEE OR TRIBE NAME
	L: OII			DRY A	Other				7. UNIT AGE	EEMENT	NAME.
TYPE OF COM		4E:	LL	DRT []	Other						
WELL	OVER DE	EP- PLU		esvr.	Other	Dry H	ole		8. FARM OR		_
NAME OF OPERAT		- TANK AND TANK	000 M A 101	,							H. Hatch
ADDRESS OF OPER	AMOCO PRO	DUCTION	CUMPAN	<u></u>					9. WELL NO	•	1
IDDRESS OF OPER	501 Airpo	ort Drive	. Farm	ngton.	New He	xico	87401	-	10. FIELD A	ND POOL	, OR WILDCAT
LOCATION OF WEI							8)*		W4 1	deat	
At surface 1	700' PNL (1030' F	EL					-		R., M., O	R BLOCK AND SURVEY
At top prod. int	erval reported b	elow Sam	e								etion 27,
At total depth	Same								T34-5,	R-2-E	;
it total depui			14.	PERMIT NO.		DATE I	SSUED		12. COUNTY	OR	13. STATE
									PARISH Garfiel	d	Utah
DATE SPUDDED	16. DATE T.D.	REACHED 17.	DATE COMP	L. (Ready t	o prod.)	l8. ELEVA	ATIONS (DF,		r, GR, ETC.)*		LEV. CASINGHEAD
-6-74	4-15-1	74	4-18	-74 (PX	A)	6206	'GL, (6220'	KB		adap
OTAL DEPTH, MD	& TVD 21. PL	UG, BACK T.D., M	D & TVD	22. IF MUL HOW M	TIPLE COMP	L.,	23. INTER DRILL		ROTARY TO	ors	CABLE TOOLS
00' KB		-		-				<u> </u>	Q-TD	1 95	, WAS DIRECTIONAL
PRODUCING INTER	CVAL(S), OF THIS	S COMPLETION-	-TOP, BOTT	M, NAME (1	MD AND TVD)*					SURVEY MADE SURVEY MADE
ry Hole										1	int only.
YPE ELECTRIC A	ND OTHER LOGS	RUN									AS WELL CORED
	Electric,		~CP	Continu	oue Dir	meter	. Side	vall	Neut res		Yes
BRUCLION	ELECCTIC,			CORD (Rep					Porsoit		·
CASING SIZE	WEIGHT, LB.		SET (MD		LE SIZE			NTING R	ECORD		AMOUNT PULLED
16"	65#/	ft. 2	621	I	22"	5	50 sx	(circ	:.)		None
8-5/8"	29#/		95')	14	3/4"	13	50 sx	(circ	:.)		None
1-1/2"	2.90#/	ft. 19	51')								None
arasite)	1	TIMED DECK	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			.	20	m	UDING DEG	OBD	
SIZE	TOP (MD)	BOTTOM (MI		CEMENT*	SCREEN (30.		UBING REC		PACKER SET (MD)
SIZE	TOP (MD)	BUTTOM (MI	SACE	CEMENT	SCREEN (-	SIZE	_	EFIR SET (-	PACKER SEI (MD)
	······································							_		[-	
PERFORATION REC	CORD (Interval, 8	ize and numbe	r)		82.	ACI	D, SHOT, 1	FRACTU	RE, CEMEN	T SQUE	CEZE, ETC.
					DEPTH I	NTERVAL	(MD)	AMO	UNT AND KI	ND OF M	ATERIAL USED
						-					
MT											
None											
NORE				To Co)			<u> </u>		·	
NORE	ION PROF	OUCTION METHO	D (Flowing		OUCTION umping—siz	e and tu	pe of pumn)	WELL	STATUS	(Producing or
		Dry Ho	•	, y P			· · · · · · · · · · · · · · · · · · ·	•		ıt-in)	
FIRST PRODUCT	1,002		IZE PR	DD'N. FOR	OIL—BBL	,	GAS-MCF		WATER—BB		Dandoned GAS-OIL RATIO
FIRST PRODUCT	HOURS TESTED	CHOKE S		ST PERIOD		1		1			
FIRST PRODUCT		CHOKE S	TE	\longrightarrow		I					
FIRST PRODUCT		TRE CALCULA	red on	→ → BBL.	GAS	—мс г.	W	/ATER—1	BBL.	OIL GR	AVITY-API (CORR.)
FIRST PRODUCT	HOURS TESTED		red on	,—ВВL.	GAS-		- v	/ATER—I	BBL.	OIL GR	AVITY-API (CORR.)
OF TEST . TUBING PRESS.	HOURS TESTED	CRE CALCULAY 24-HOUR	TED OII	——BBL.	GAS	—мс г .	 	/ATER—I	BBL. TEST WITNE		
FIRST PRODUCTS OF TEST TUBING PRESS.	HOURS TESTED CASING PRESSU AS (Sold, used fo	CRE CALCULAY 24-HOUR	TED OII	,—BBL.	GAS	MCF.	W	/ATER—I			
OF TEST . TUBING PRESS.	HOURS TESTED CASING PRESSU AS (Sold, used fo	CRE CALCULAY 24-HOUR	TED OII	BBL.	GAS	MCF.	W	/ATER—1			

NSTRUCTIONS

or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency General:

should be listed on this form, see item 35.

or Federal office for specific instructions.

Hem 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Hems 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Hem 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Hem 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

MAY 6 1974

SHOW ALL IMP DEPTH INTERVA	ORTANT ZONES OF PO AL TESTED, CUBHION	SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING	SY THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING EN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	38. GEOLG	GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	57.72	Ţ	TOP
Core #1: 5124-44".		bbl. 1smmed	Core bbl. dammed. Recovered 20' core with 3' of core	AABB	MEAS. DEPTH	TRUE VERT. DEPTH
		containing dead oil stains.	oil stains.	Navajo	1615*	
Core #2: 5144	-5204'. Rec	dovered 60'	Core #2: 5144-5204'. Redovered 60' core with no shows.	Wingate Chimle	3352'	
DST #1: 5098-	5098-5150'. Tool	t open 15 min	n. with fair blow increasing to good blow	Shinerump Mecakoni	4130	
	# 6	in 4 min. Closed tool	ed tool for 30 min. first closed in pressure. Tempoweap	. Tempoweap	2002	
		operate tota for younn. eresting to a good blow	yo min. second ilow with a weak blow in- cod blow in 5 min and a strong blow in 15	Kaibab White Rin	5235	
	min.	.; decreased		Torowanp	\$420	
	Reca	Receivered 373' of water	Recevered 373' of water cut drilling mud, 1119' water and	£	2000	
	Int	Hal bydrost	intital hydrostatic 2030 nst: 15 min. IFP 340: 30 min.			
	131	(SIP 1620 pat; 90 min.	90 min. FFF 1063 pet: 90 min FSIP 1535			
	pst	psi, final hydrostatic				
	, ,					
				<u>↓</u>		
A						
					<u></u>	



CHEM LAB



Ca

Mg

Fe

WATER ANALYSIS EXCHANGE REPORT

OPERATOR Amoc	ield		LAB NO LOCATION FORMATION INTERVAL SAMPLE FROM DATE	98-3 SE NE 27- Tempoweep 5098-5150 DST No. 1 May 9, 19	(Middle - 4100')
REMARKS & CONC	ELUSIONS:Ve	ery cloudy w	ater with cloud	ly filtrate	
Cations Sodium	mg/1 2392 423 906 248 present	meq/1 104.05 10.83 - 45.21 20.39 -	Anions Sulfate Chloride Carbonate Bicarbonate Hydroxide Hydrogen sulfide		mg/1 meq/1 600 54.08 900 81.78 0 - 721 44.62
Total dissolved solids, : NaC1 equivalent, mg/1 Observed pH	• • • • • • •	10809 9106 7.3	Specific resistanc Observed Calculated		0.88 ohm-mete

WATER ANALYSIS PATTERNS MEQ per unit

LOGARITHMIC **STANDARD** Na Cı Cı 20 HCO3 Ca HCO3 2 SO₄ Mg SOA 2 Fe CO3

2

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Form 9-331		TED STATES	SUBMIT IN Th (CATE*	Form appro	
(May 1963)	DFPART	MENT OF THE INTE			reau No. 42-R1424 ON AND SERIAL NO.
		GEOLOGICAL SURVEY		U-16526-	
7				6. IF INDIAN, ALLOTT	
		ICES AND REPORTS			
(Do not use thi	Use "APPLIC.	sais to drill or to deepen or pi ATION FOR PERMIT—" for su	ug back to a different reservoir. ch proposals.)		
1.				7. UNIT AGREEMENT	NAME
WELL GAS WELL	OTHER	Dry Hole (Wildcat	:)		
2. NAME OF OPERATOR				8. FARM OR LEASE NA	AME
AMOCO PRODU		ANY		USA Ronald	H. Hatch
3. ADDRESS OF OPERATO	R			9. WELL NO.	
		rmington, New Mexi		1	
See also space 17 be	Report location of low.)	clearly and in accordance with	any State requirements.*	10. FIELD AND POOL,	OR WILDCAT
At surface				Wildcat	
				11. SEC., T., R., M., OR SURVEY OR ARE	EA.
1700' FNL 4	1030' FEI	1		SE/4 NE/4 Se	
14. PERMIT NO.	- <u>-</u>	15. ELEVATIONS (Show whether	er DF. RT. CR. etc.)	T-34-8 R-2- 12. COUNTY OR PARIS	H 13. STATE
		6206' GL, 6220	_	Garfield	Utah
16.	Check A		e Nature of Notice, Report, or C		
	NOTICE OF INTER		•	UENT REPORT OF:	
	NOTICE OF INTER	TION TO.	igasaus	TENT REPORT OF.	
TEST WATER SHUT-	OFF	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING	WELL
FRACTURE TREAT		MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING	
SHOOT OR ACIDIZE		ABANDON*	SHOOTING OR ACIDIZING	ABANDONM	ENT*
REPAIR WELL		CHANGE PLANS	(Other)(Note: Report results	of multiple completion	on Well
(Other)			Completion or Recomp	letion Report and Log f	form.)
proposed work. I	If well is direction	crations (Clearly state all pertionally drilled, give subsurface	inent details, and give pertinent dates, locations and measured and true vertice	al depths for all marke	ers and zones perti-
nent to this work.)	, 7		`		
Dan de Maddan					
			hydrocarbons, Amoco pl	ingged and spe	Rachea
the subject we	TT 98 TOTI	.ows :			
1 (-d 100	to Olone Holl come		75 50501	
~			t with 2% CaCl2 from 52	_	
2. Spott 3. Spott			it with 2% CaCl ₂ from 41 it with 2% CaCl ₂ from 34		
			squeezed below retainer		- Cl
		th 2% CaCl ₂ .	admemon herna recerner	. WILL JJ BOCK	10 八十四年9
			with 2% CaCl2 down 1-1/	/2" nerecite e	trino.
			ker and returned locati		
			specifications set by		
acc	meron work		. observersome ear ol		14 A WALES

NOTE: Well turned over to BLM by Amoco for possible future use as water supply well per Mr. Edgar W. Guynn, U.S.G.S., letter of April 16, 1974.

18. I hereby certify that the foregoing is true and correct SIGNED J. Amold Sell	TITLE	Area Engineer	DATE APT	11 30, 1974
(This space for Federal or State office use)				
APPROVED BYCONDITIONS OF APPROVAL, IF ANY:	TITLE		DATE	

JAK



Amoco Production Company

501 Airport Drive Farmington, New Mexico 87401

May 10, 1974

File: LOS-149-986.613

Re: Reserve Pit Spill

USA Ronald H. Hatch No. 1 Garfield County, Utah

Mr. Gerald R. Damiels
District Engineer
U. S. Geological Survey
8426 Fedeval Building
125 South State Street
Salt Lake City, Utah 84138

Dear Mr. Daniels:

As stated in our letter of March 25, 1974, we are attaching an analysis of the fluid which was lost from the reserve pit on the USA Ronald H. Hatch Well No. 1.

Yours very truly,

L. O. Speer, Jr. Area Superintendent

JWC:en Attachment

cc: Bureau of Land Management 320 North First East Kanab, Utah 84741

State of Utah

Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

Milchem

RESEARCH LABORATORY SERVICE REPORT

9920 ESSEX LANE — BOX 22111 HOUSTON, TEXAS 77027

. 45

X . 2		LSR #0926	
	ANALYSIS OF WATER LOST FROM PIT	SRD-1298	` 3 - 28 - 74
	SUBJECT OF REPORT	REPORT NUMBER	DATE
·	AMOCO PRODUCTION CO. U.S.A. R.H. HATCH #1	R. K	. Hill
		SECTION	SUPERVISOR
	GARFIELD COUNTY, UTAH, WILDCAT		•
REQUESTE	D BY Don Linder F	or Amoco Production	ı Co.

The reserve pit broke at Amoco's U.S.A. R.H. Hatch #1 and the water ran down the canyon. A sample of the fluid was collected at 9:20 am on March 20, 1974 from the end of the spill, 1.2 miles from the pit. This sample was received for chemical analysis.

Chemical analysis of the sample showed it to contain the following:

Calcium ion content, ppm	470
Magnesium ion content, ppm	41
Potassium ion content, ppm	ND (a)
Chloride ion content, ppm	9,700
Bicarbonate ion content, ppm	114
Carbonate ion content, ppm	none
Hydroxide ion content, ppm	none
pH	7.00
Oil Content	ND (b)

- (a) No potassium detected by tetraphenylboron, less than 5 ppm apparently present.
- (b) No oil detected by absorbance of a CCl₄ extract at 2950 cm⁻¹ frequency, and indicates less than 1 mg/liter present.

The analysis shows the fluid sample to be a salt water, with a salt concentration approximately half that of seawater.

H. F. Young R. K. Hill

: dmc

cc: Jerry Pope, Amoco Production Co., via Linder Don Linder
Danny Ried
Bill Holman (2)

MP/XAN ...

FORM OGC-8-X FILE IN QUADRUPLICATE

form)

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL AND GAS CONSERVATION 1588 West North Temple Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name ar	nd Number	JSA Ronald H. Hatch	No. 1		
Operator	A	AMOCO PRODUCTION COM	PANY	·	
Add	dress5	001 Airport Drive, F	armington, New	Mexico 87401	
Contractor _	I	offland Brothers Dr	illing Company		
Ado	iress]	1216 E. Bloomfield F	d., Farmington,	New Mexico 874	401
Location S	E 1/4, NE 1/4,	Sec. 27 , T. 34	KX, R. 2 E.	Garfield Cou	inty.
Water Sands	:				
From -	Depth: To -		olume: e or Head -		lity: or Salty -
1. 5098	5150'	2360' water i	rom DST #1	See analys:	is attached
2.					
3.					
4					
5.		(Cor	ntinue on Revers	se Side if Neces	sary)
Formation To	ops:		,		
Nayajo Wingate		Moenkopi Tempoweap		Toroweap TD	5420' 5600'
Chinle Shinarump	3620 ' 4130 '	Kaibab White Rim	5140' 5235'		
NOTE: (a)	Report on this i	g supply of forms, p form as provided for Rules of Practice a	in Rule C-20,	General Rules a	nd s

(c) If a water quality analysis has been made of the above reported zone,

please forward a copy along with this form.

Observed pH



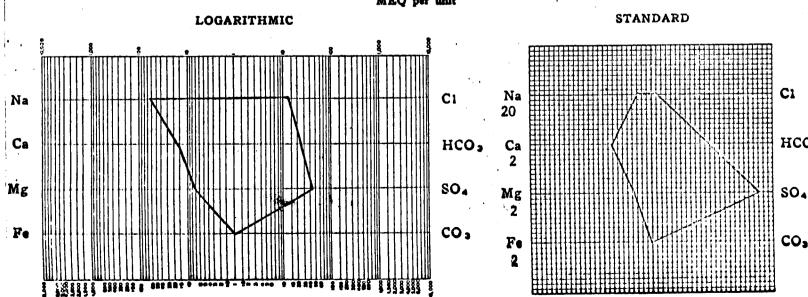
CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

Cotal dissolved VaC1 equivalen	2701	
,	Total Cations 81.2	23 Total Anions 81.23
ron	present -	Hydrogen sulfide
lagnesium -	85 6.99	
alcium	329 16.4	2000
ithium 🕹 -		Carbonate • • • • 0
otassium -	84 2.1	
odium	1280 55.6	
Cations	mg/1 meq/	/1 Anions mg/1 meq/1
	CONCLUSIONS: Very cloudy	y water with cloudy filtrate
	Jtah Jtah	DATE May 9, 1974
	Garfield	SAMPLE FROM DST No. 1 (Top - 2365')
ELL NO	Vildcat	INTERVAL 5098-5150
PERAIUR	ISA Hatch No. 1	LOCATION SE NE. 27-345-2E FORMATION Tempoweep
	Amoco Production Company	LOCATION SE NE. 27-34S-2E

WATER ANALYSIS PATTERNS MEQ per unit

Calculated



CHEM LAB



WATER ANALYSIS EXCHANGE REPORT

OPERATOR Amoco		pany	LAB NO. 125 LOCATION FORMATION INTERVAL SAMPLE FROM DATE	Tempowe 5098-51	27-34S-2E eep L50 . 1 (Middle	
REMARKS & CONCL	usions:	Very cloudy	water with clo	oudy filt	trate	
Cations Sodium	mg/1 1742 257 - - - 637 223 present	meq/1 75.78 6.58 - 31.79 18.33	Anions Sulfate Chloride Carbonate - Bicarbonate - Hydroxide - Hydrogen sulfide		mg/1 2325 1500 0 2550	meq/1 48.36 42.30 41.82
Total dissolved solids, m NaC1 equivalent, mg/1 Observed pH	ng/1	7940 6401 7.1	Specific resistar Observe Calculate	d		ohm-meters ohm-meters

WATER ANALYSIS PATTERNS MEQ per unit

STANDARD LOGARITHMIC C1 Na Cı 20 HCO: HCO3 Ca 2 Mg SO₄ SO₄ Mg 2 Fe CO, CO3 Fe 2

g



CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MAY 13 1974

FARMINGTON
AREA

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AAS

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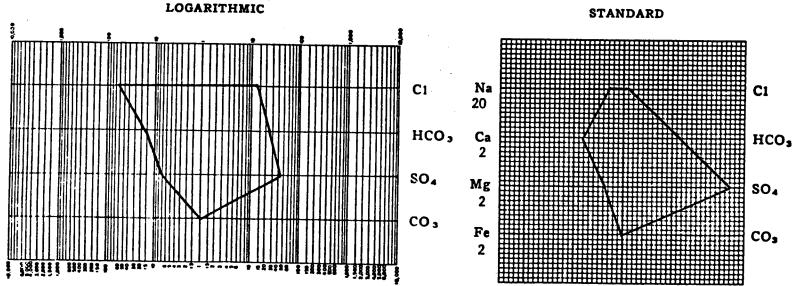
MEMBER Amoco Production Company OPERATOR Amoco Production Company WELL NO. USA Hatch No. 1	LAB NO. 12598-1 REPORT NO. 3 LOCATION SE NE. 27-34S-2E	KH IKK
FIELD Wildcat COUNTY Garfield	INTERVAL 5098-5150 SAMPLE FROM DST No. 1 (Top - 2365')	wen 28
STATE Utah	DATE May 9, 1974	OU. ankon

REMARKS & CONCLUSIONS: Very cloudy water with cloudy filtrate

Cations Sodium	mg/1 1280 84 - 329 85 present	meq/1 55.67 2.15 ————————————————————————————————————	Anions Sulfate		meq/1 44.20 13.82 - 23.21
Total Cations		81.23	Total Ani		81.23
Total dissolved solids, mg/1 NaC1 equivalent, mg/1 Observed pH		5090 3781 7.3	Specific resistance @ 68° : Observed Calculated	F.: 2.20 1.70	ohm-meters

WATER ANALYSIS PATTERNS

MEQ per unit







WATER ANALYSIS EXCHANGE REPORT

OPERATOR Amoco WELL NO. USA H FIELD Wildc COUNTY Garfi STATE Utah		pany	LAB NO	98-2 SE NE 27-3 Tempoweep 5098-5150 DST No. 1 May 9, 197	34S-2E (Middle	
REMARKS & CONC	LUSIONS:	Very cloudy	water with clo	udy filtrat	te	
Cations Sodium	mg/1 1742 257 - 637 223 present	meq/1 75.78 6.58 - 31.79 18.33	Anions Sulfate Chloride Carbonate Bicarbonate Hydroxide		mg/1 2325 1500 0 2550	meq/1 48.36 42.30 41.82
Total	Cations	132.48		Total Anions	• • • • .	132.48
Total dissolved solids, s NaC1 equivalent, mg/1 Observed pH		7940 6401 7.1	Specific resistan Observed Calculate	i	1.16	ohm-meter

WATER ANALYSIS PATTERNS MEQ per unit

STANDARD LOGARITHMIC C1 Na CI Nа 20 HCO3 Ca HCO₃ Ca 2 SO₄ Лg Mg SO₄ CO₃ Fe CO3 Fe 2

(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/1=Milligrams per liter. Meq/1=Milligram equivalents per liter

Sodium chloride equivalent=by Dunlap & Hawtherne calculation from components

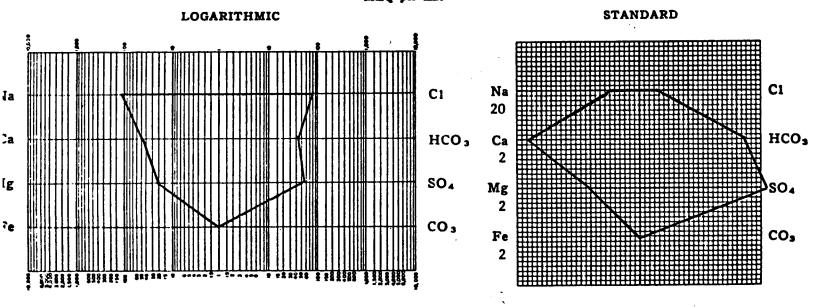


CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Amoco Production	Company	LAB NO125	98-3	REPORT N	0
OPERATOR_	Amoco Production	Company	LOCATION	SE NE 27-	34S-2E	
WELL NO	USA Hatch No. 1		FORMATION	Tempoweep		
FIELD	Wildcat		INTERVAL	5098-5150		
COUNTY	Garfield		SAMPLE FROM	DST No. 1	(Middle -	- 4100')
STATE	Utah		DATE	May 9, 19		
REMARKS &	CONCLUSIONS:	Very cloudy	water with cloud	ly filtrate		
• •						
Cations	mg/1	meq/1	Anions	<u> </u>	mg/1	meq/1
Sodium	2392	104.05_	Sulfate	2	600	54.08
Potassium -	423	10.83	Chloride	2	900	81.78
	-		Carbonate	· · ·		
Calcium	906	45.21	Bicarbonate	2	721 _	44.62
Magnesium -	248	20.39	Hydroxide		-	-
Iron	present		Hydrogen sulfide			
	Total Cations	- 180.48		Total Anions		180.45
	solids, mg/1	9106	Specific resistanc Observed Calculated		0.88 0.74	_ ohm-meter _ ohm-meter

WATER ANALYSIS PATTERNS MEQ per unit

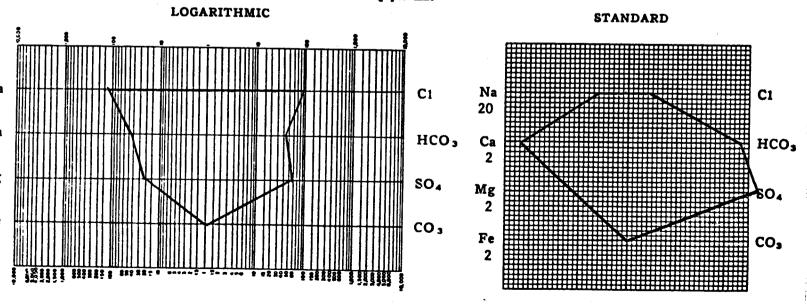


(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l=Milligrams per liter. Meg/l=Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components



MEMBER	Amoco Production		LAB NO. 12	598-4	PEDADA	NO
OPERATOR_	Amoco Production	Company	LOCATION	SE NE 27-		NU
WELL NO	USA Hatch No. 1		FORMATION	Tempoweep		
FIELD	Wildcat		INTERVAL	5098-5150		
COUNTY	Garfield		SAMPLE FROM			50771)
STATE	Utah		DATE	May 9, 19		3077
REMARKS &	CONCLUSIONS:	Very cloudy wa	iter with cloud	dy filtrat	е	
Cations	mg/1	meq/1	Anions		mg/1	meq/1
Sodium	2594	112.85	Sulfate		2700	56.16
Potassium -	468	11.98			3150	88.83
Lithium			Carbonate -		0	
Calcium	886	44.21	Bicarbonate -		2830	46.41
Magnesium -	272	22.36	Hydroxide -		_	
Iron	present		Hydrogen sulfid		_	
	Total Cations			Total Anions		191.40
	solids, mg/1	9712	Specific resistar Observe Calculat	d	0.84	ohm-meters

WATER ANALYSIS PATTERNS MEQ per unit



(Na value in above graphs includes Na, K, and Li)

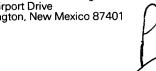
NOTE: Mg/1=Milligrams per liter. Meq/1=Milligram equivalents per liter

Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components



Amoco Production Company

Petroleum Center Building 501 Airport Drive Farmington, New Mexico 87401



August 16, 1976

Mr. Cleon B. Feight, Director State of Utah Department of Natural Resources Division of Oil, Gas and Mining 1588 West North Temple Salt Lake City, Utah 84116

File: LOS-296-535.11

Dear Sir:

Water Quality Analyses

This is in reply to your correspondence dated August 11, 1976, requesting available formation water analyses from all wells and test holes drilled in the State of Utah during the period July, 1972 to date. The USA Ronald A. Hatch No. 1 located in the SE/4 NE/4 of Section 27, T-34-S, R-2-E, Garfield County, Utah was the only well drilled by Amoco Production Company out of the Farmington Area office during this period. Only one DST was taken during the course of drilling operations on this unsuccessful wildcat well. Four water samples were obtained from the DST and submitted for analysis. A copy of each of the four water analyses reports is attached for your information.

If we can be of further assistance in this matter, please advise.

Yours very truly,

FLS/en

Attachments

TABULATION OF DEVIATION TESTS USA RONALD H. HATCH NO. 1 AMOCO PRODUCTION COMPANY

DEPTH	DEVIATION	DEPTH	DEVIATION	DIRECTION
120'	1/4°	2205	1/4°	
2601	1/4°	2607 '	3/4°	
400°	3/4°	3011'	1-1/4°	
600'	1-1/2°	3480	1-1/4°	
706	2°	3894 ¹	1-1/2°	
730'	2°	4040 '	1/4°	
7941	2°	4440	1-1/4°	
857¹	1-3/4°	4846	3-1/2°	
952'	1-3/4°	4960	4°	
1043'	1-3/4°	5070 '	4°	
1130'	1-1/2°	5124	- `.	
1263	1-1/2°	•	Sidetrack Ho	
1380'	1-1/2°	3720 '	$1^{\mathbf{o}}$	S68W
1548	2-1/2°	3776 '	1-1/2°	S25E
1590 '	2°	3810 '	2°	E
1645'	2-1/4°	3841 '	1-3/4°	N67E
1742	2°	3874 '	2-1/2°	N67E
1840'	2°	3904	3-1/4°	N84E
1955'	1-3/4°	3935'	4°	N15E
20901	1-3/4°	3966'	4-1/2°	N39E

TABULATION OF DEVIATION TESTS USA RONALD H. HATCH NO. 1 AMOCO PRODUCTION COMPANY

DEPTH	DEVIATION	DIRECTION		
4019 '	6-1/4°	N25E		
4049	6-1/2°	N24E		
4080	6-3/4°	N20E		
4111'	6-1/2°	N20E		
4141'	6-1/2°	N23E		
4204¹	5-3/4°	N29E		
4250¹	5-1/4°	÷		
4333'	4-1/4°			
4400	4-3/4°			
4475	5-1/2°			
4550°	6-1/2°			
4581 '	6-1/2°	•		
4645	; 7°			
4665	. 7°	•		
4735	6-1/2°	•		
4828	6°			
4920	6°			
5013	5-3/4°			
5146'	5-1/2°			
5350'	4-1/2°			
55001	3-1/4°			

AFFIDAVIT

THIS IS TO CERTIFY that to the best of my knowledge the above tabulation details the deviation tests taken on AMOCO PRODUCTION COMPANY'S USA Ronald H. Hatch No. 1 located 1700' FNL and 1030' FEL, Section 27, T-34-S, R-2-E, Garfield County, Utah.

Signed	J. and Sull				
Title	Area Engineer				

THE	STA	ATE	OF	NEW	MEX	ICO)	
) .	SS
COIR	YTV	OF	SAI	JU.	AN)	

BEFORE ME, the undersigned authority, on this day personally appeared J. Arnold Snell known to me to be Area Engineer for Amoco Production Company and to be the person whose name is subscribed to the above statement, who, being by me duly sworn on oath, states that he has knowledge of the facts stated herein and that said statement is true and correct.

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for said County and State this 29th day of April , 1974.

Cleanor & Brawn Notary Public

My Commission Expires: December 28, 1975